

**Amendments To The Claims**

1. (Currently amended) A method for identifying compounds useful for modulating body weight, the method comprising:

(a) contacting a test compound with: a mammalian sequence #115(1) a protein having an amino acid sequence that is at least 85% identical to SEQ ID NO: 6 or a fragment thereof having at least 8 amino acids; or (2) a nucleic acid molecule encoding said protein;

(b) determining whether the test compound binds to the mammalian sequence #115; and said protein or nucleic acid molecule;

(c) if the test compound binds to said protein or nucleic acid molecule then administering the test compound to a mammal and measuring the effect of the test compound on the body weight of said mammal;

wherein if the body weight of said mammal is modulated after administration of the test compound then the test compound is identifying a compound that binds to the mammalian sequence #115 as a compound useful for modulating body weight.

2. (Withdrawn- currently amended) A method for identifying compounds useful for modulating body weight, the method comprising:

(a) contacting a sequence #115 ligand with a mammalian sequence #115 protein having an amino acid sequence that is at least 85% identical to SEQ ID NO: 6 or a fragment thereof having at least 8 amino acids in the presence and absence of a test compound;

(b) determining whether the test compound alters the binding of the sequence #115 ligand to the mammalian sequence #115; and said ligand to said protein;

(c) if the test compound alters the binding of said ligand to said protein then administering the test compound to a mammal and measuring the effect of the test compound on the body weight of said mammal;

wherein if the body weight of said mammal is modulated after administration of the test compound then the test compound is identifying a compound that alters the

~~binding of the sequence #115 ligand to the mammalian sequence #115 as a compound useful for modulating body weight.~~

3. (Currently amended) The method of claim 1, wherein ~~the mammalian sequence #115~~the protein is expressed on the surface of a recombinant cell.

4. (Withdrawn- currently amended) The method of claim 2, wherein the ~~mammalian sequence #115~~ the protein is expressed on the surface of a recombinant cell.

5. (Currently amended) The method of claim 3, wherein the recombinant cell is a[n] eukaryotic cell.

6. (Withdrawn- currently amended) The method of claim 4, wherein the recombinant cell is a[n] eukaryotic cell.

7. (Withdrawn - currently amended) A method for identifying compounds useful for modulating body weight, the method comprising:

(a) contacting a test compound with a cell expressing a mammalian sequence #115 a protein having an amino acid sequence that is at least 85% identical to SEQ ID NO: 6;

(b) determining whether the test compound alters the activity of the mammalian sequence #115; and said protein;

(c) if the test compound alters the activity of said protein then administering the test compound to a mammal and measuring the effect of the test compound on the body weight of said mammal;

wherein if the body weight of said mammal is modulated after administration of the test compound then the test compound is identifying a compound that alters activity of the mammalian sequence #115 as a compound useful for modulating body weight.

8. (Withdrawn - currently amended) The method of claim 7, wherein the activity of ~~mammalian sequence #115~~ the protein is determined by measuring the level of cAMP in the cell.
9. (Withdrawn - currently amended) The method of claim 7, wherein the activity of ~~the mammalian sequence #115~~ the protein is determined by measuring the level of cytoplasmic  $\text{Ca}^{2+}$  in the cell.
10. (Withdrawn) The method of claim 8, wherein the cell further contains a reporter gene operatively associated with a cAMP responsive element, and the level of cAMP is measured by measuring expression of the reporter gene.
11. (Withdrawn) The method of claim 10, in which the reporter gene is alkaline phosphatase, chloramphenicol acetyltransferase, luciferase, glucuronide synthetase, growth hormone, or placental alkaline phosphatase.
12. (Withdrawn - currently amended) The method of claim 7, wherein the activity of ~~the mammalian sequence #115~~ the protein is measured by measuring intracellular inositol 1,4,5-trisphosphate (1P3).
13. (Withdrawn - currently amended) The method of claim 7, wherein the activity of ~~the mammalian sequence #115~~ the protein is measured by measuring intracellular 1,2-diacylglycerol (DAG).
14. (Original) The method of claim 1, wherein the mammal is a mouse.
15. (Withdrawn) The method of claim 2, wherein the mammal is a mouse.
16. (Withdrawn) The method of claim 7, wherein the mammal is a mouse.

17. (Withdrawn- currently amended) A pharmaceutical formulation for the modulation of body weight, comprising a compound ~~that modulates the activity of a mammalian sequence #115~~, useful for modulating body weight identified by the method of claim 1 mixed with a pharmaceutically acceptable carrier.

18. (Withdrawn) A package comprising the pharmaceutical formulation of claim 17 and instructions for administering the pharmaceutical formulation for the purpose of modulating body weight.

19. (Currently amended) A method for preparing a pharmaceutical composition useful for modulating body weight, the method comprising:

(a) contacting a test compound with: a mammalian sequence #115(1) a protein having an amino acid sequence that is at least 85% identical to SEQ ID NO: 6 or a fragment thereof having at least 8 amino acids; or (2) a nucleic acid molecule encoding said protein;

(b) determining whether the test compound binds to the mammalian sequence #115-said protein or nucleic acid molecule;

(c) if the test compound binds to said protein or nucleic acid molecule then administering the test compound to a mammal and measuring the effect of the test compound on the body weight of said mammal; wherein if the body weight of said mammal is modulated after administration of the test compound then the test compound is a compound useful for modulating body weight; and

(d) combining the test compound that binds to the mammalian sequence #115 useful for modulating body weight with a pharmaceutically acceptable carrier to create a pharmaceutical composition useful for modulating body weight.

20. (Withdrawn-currently amended) A method for the treatment of obesity comprising administering, to a patient in need thereof, the ~~pharmaceuticeal~~ pharmaceutical composition according to claim 19 wherein the test compound decreases body weight.

21. (Withdrawn-currently amended) A method for the treatment of cachexia comprising administering, to a patient in need thereof, the ~~pharmaceutic~~pharmaceutical composition according to claim 19 wherein the test compound increases body weight.

22. (Withdrawn-currently amended) A method for preparing a pharmaceutical composition useful for modulating body weight, the method comprising:

(a) contacting a sequence #115 ligand with a mammalian sequence #115 protein having an amino acid sequence that is at least 85% identical to SEQ ID NO: 6 or a fragment thereof having at least 8 amino acids in the presence and absence of a test compound;

(b) determining whether the test compound alters the binding of the sequence #115 ligand to the mammalian sequence #115; and said ligand to said protein;

(c) if the test compound alters the binding of said ligand to said protein then administering the test compound to a mammal and measuring the effect of the test compound on the body weight of said mammal; wherein if the body weight of said mammal is modulated after administration of the test compound then the test compound is identifying a compound that alters the binding of the sequence #115 ligand to the mammalian sequence #115 as a compound useful for modulating body weight; and

(d) combining the test compound that binds to the mammalian sequence #115 useful for modulating body weight with a pharmaceutically acceptable carrier to create a pharmaceutical composition useful for modulating body weight.

23. (Withdrawn-currently amended) A method for the treatment of obesity comprising administering, to a patient in need thereof, the ~~pharmaceutic~~pharmaceutical composition according to claim 22 wherein the test compound increases body weight.

24. (Withdrawn-currently amended) A method for the treatment of cachexia comprising administering, to a patient in need thereof, the

~~pharmaceutic~~pharmaceutical composition according to claim 22 wherein the test compound decreases body weight.

25. (Currently amended) The method of claim 1, wherein ~~the mammalian sequence #115 is murine sequence #115~~ the test compound is contacted with the protein.

26. (Withdrawn-currently amended) The method of claim 21, wherein ~~the mammalian sequence #115 is murine sequence #115~~ the test compound is contacted with the nucleic acid molecule.

27. (Withdrawn-currently amended) The method of claim 7, wherein ~~the mammalian sequence #115 is murine sequence #115~~ the protein has an amino acid sequence that is at least 95% identical to SEQ ID NO: 6.

28. (Currently amended) The method of claim 19, wherein ~~the mammalian sequence #115 is murine sequence #115~~ the test compound is contacted with the protein.

29. (Withdrawn-currently amended) The method of claim 22, wherein ~~the mammalian sequence #115 is murine sequence #115~~ the protein has an amino acid sequence that is at least 95% identical to SEQ ID NO: 6.

30. (Currently amended) The method of claim 42, wherein ~~the mammalian sequence #115 is human sequence #115~~ the test compound is contacted with the protein.

31. (Withdrawn-currently amended) The method of claim 2, wherein ~~the mammalian sequence #115 is human sequence #115~~ the test compound is contacted with the nucleic acid molecule.

32. (Withdrawn-currently amended) The method of claim 7, wherein ~~the mammalian sequence #115 is human sequence #115~~ the protein has an amino acid sequence that is at least 99% identical to SEQ ID NO: 6.

33. (Currently amended) The method of claim 19, wherein ~~the mammalian sequence #115 is human sequence #115~~ the test compound is contacted with the nucleic acid molecule.

34. (Withdrawn-currently amended) The method of claim 22, wherein ~~the mammalian sequence #115 is human sequence #115~~ the protein has an amino acid sequence that is at least 99% identical to SEQ ID NO: 6.

35. (Original) An antibody that recognizes an isolated polypeptide comprising the amino acid sequence of SEQ ID NO:6.

36. (Original) An antibody that recognizes an isolated polypeptide which is encoded by a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:5.